

BEFORE THE
POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON

IN THE MATTER OF
KAISER ALUMINUM & CHEMICAL
CORPORATION,

Appellant,

v.

STATE OF WASHINGTON, DEPARTMENT
OF ECOLOGY and PUGET SOUND AIR
POLLUTION CONTROL AGENCY,

Respondents.

PCHB No. 80-168

FINAL FINDINGS OF FACT,
CONCLUSIONS OF LAW & ORDER

THIS MATTER, the appeal from the issuance of six civil penalties for the alleged violation of WAC 18-52-031(3), having come on regularly for formal hearing on December 15 and 23, 1980, in Tacoma, and appellant represented by its attorney, Edward M. Lane; respondent Department of Ecology, represented by Wick Dufford, assistant attorney general and respondent Puget Sound Air Pollution Control Agency represented by its attorney, Keith D. McGoffin, with David Akana presiding, and having reviewed the Proposed Order of the presiding officer mailed

1 to the parties on the 10th day of April, 1981, and more than twenty
2 days having elapsed from said service; and

3 The Board having received no exceptions to said Proposed Order
4 and the Board being fully advised in the premises; NOW THEREFORE,

5 IT IS HEREBY ORDERED, ADJUDGED AND DECREED that said Proposed
6 Order containing Findings of Fact, Conclusions of Law and Order dated
7 the 10th day of April, 1981, and incorporated by reference herein and
8 attached hereto as Exhibit A, are adopted and hereby entered as the
9 Board's Final Findings of Fact, Conclusions of Law and Order herein.

10 DATED this 7th day of May, 1981.

11 POLLUTION CONTROL HEARINGS BOARD

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14 NAT W. WASHINGTON, Chairman

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17 DAVID AKANA, Member

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25 FINAL FINDINGS OF FACT,
26 CONCLUSIONS OF LAW & ORDER

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Edward A. Lane, Attorney
Johnson, Lane & Gallagher
P.O. Box 1315
Tacoma, WA 98402

Keith D. McGoffin, Attorney
Rovai, McGoffin, Rentel & Turner
818 South Yakima Avenue
Tacoma, WA 98405

Wick Dufford
Assistant Attorney General
Department of Ecology
St. Martin's College
Olympia, WA 98504

Lloyd Taylor
Department of Ecology
St. Martin's College
Olympia, WA 98504

Ronald L. Busby
Puget Sound Air Pollution
Control Authority
P.O. Box 9863
Seattle, WA 98109

Kaiser Aluminum & Chemical Corporation
3400 Taylor Way
Tacoma, WA 98421

Trish A. Ryan
TRISH A. RYAN
POLLUTION CONTROL HEARINGS BOARD

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POLLUTION CONTROL AGENCY,

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PCHB No. 80-168

PROPOSED FINDINGS OF FACT,
CONCLUSIONS OF LAW &
ORDER

This matter, the appeals from the issuance of six civil penalties for the alleged violation of WAC 18-52-031(3), came before the Pollution Control Hearings Board, Marianne Craft Norton and David Akana (presiding), at a formal hearing in Tacoma, Washington, on December 15 and 23, 1980. Board members David Akana and Nat Washington viewed the site on January 22, 1981.

Respondent Puget Sound Air Pollution Control Agency (PSAPCA) was represented by its attorney, Keith D. McGoffin; respondent Department

EXHIBIT A

1 of Ecology (DOE) was represented by Wick Dufford, Assistant Attorney
2 General; appellant Kaiser Aluminum and Chemical Corporation (Kaiser)
3 was represented by its attorney, Edward M. Lane. Jeanette Hansen
4 (December 15) and Lois Fairfield (December 23) recorded the
5 proceedings.

6 Having heard the testimony, having examined the exhibits, and
7 having considered the brief of appellant and contentions of the
8 parties, the Board makes these

9 FINDINGS OF FACT

10 I

11 Kaiser owns and controls a primary aluminum reduction plant
12 located in Tacoma, Washington. The plant includes a dry scrubbing
13 system whose purpose is to filter exhaust gases from aluminum potlines
14 designated Nos. 1 and 2.

15 In the process of making aluminum, alumina is brought to the
16 potlines and added at varying times to each one of 120 reduction cells
17 in each of the potlines. The alumina is melted in a chemical bath and
18 siphoned off when ready. Emissions from the process are released,
19 some of which escape to the pot room work area. The captured
20 emissions, which include carbon dioxide, water vapor, fluoride gases,
21 and particulates, are transported through ducts to baghouses by four
22 fans. The air pollution control facility services both potlines 1 and
23 2 in common through a system of interconnected ducts. The emissions
24 which are not captured by the hoods escape into the workroom, mix with
25 the room air, and rise through roof vents on the top of the pot

26 PROPOSED FINDINGS OF FACT,
27 CONCLUSIONS OF LAW & ORDER

rooms. The air pollution control facility is not a part of the manufacturing process of making aluminum; it is a necessary facility to control the emissions resulting from the manufacturing process. Potlines 1 and 2 are each contained in separate buildings connected by a large covered passageway and share the same air pollution control equipment.

II

At about 12:00 noon on June 3, 1980, while on routine patrol, PSAPCA's inspector saw emissions coming from Kaiser's potline roof vents. He left the area but returned at about 1:22 p.m. at which time a blue/white plume was still visible from the roof vents of potlines 1 and 2. The inspector positioned himself to look at plumes across the two potlines in order to obtain the correct viewing point. From this vantage point, the plumes from both potlines were observed as an inseparable, combined plume for a period of 20 minutes. During this period, an opacity greater than 20 percent was observed for 14 3/4 minutes.

Upon notifying Kaiser of the observation, the inspector was informed that the emission resulted from routine maintenance on the No. 7 fan. On June 2, Kaiser had notified PSAPCA by telephone that such maintenance would be performed beginning 6:00 a.m. on June 3 for 30 hours.

In response to PSAPCA's request for a full report of the causes and preventive measures taken to minimize or eliminate a recurrence of the event, Kaiser explained that preventive maintenance was performed and what was done.

1 For the foregoing event, Kaiser was mailed a notice of violation
2 of WAC 18-52-031(3).

3 III

4 On June 4, 1980, at about 1:30 p.m. while on routine patrol,
5 PSAPCA's inspector saw white emissions coming from the northwest area
6 of Kaiser's baghouse complex on potlines 1 and 2. After properly
7 positioning himself, he observed the plume and recorded an opacity of
8 60 to 80 percent for 10 consecutive minutes. After completing his
9 observation, the inspector saw emissions coming from the east area of
10 the baghouse complex. He observed the blue/gray/white plume and
11 recorded an opacity of 45 to 50 percent for 9 consecutive minutes.
12 Upon notifying Kaiser of the observations, the inspector was told that
13 the emission resulted from returning the No. 7 fan to service after
14 its regular maintenance for which Kaiser had notified PSAPCA on June 2.

15 For the foregoing event, Kaiser was mailed a notice of violation
16 of WAC 18-52-031(3) for each observation.

17 IV

18 On June 16, 1980, at about 4:11 p.m. while on routine patrol,
19 PSAPCA's inspector saw a blue/white plume coming from the roof vents
20 on Kaiser's potlines 1 and 2. The inspector could not separate the
21 plumes from the roof vent above each potline and could only read the
22 combined plume from the roof vents. After properly positioning
23 himself, the inspector recorded an opacity of 45 to 55 percent for 10
24 consecutive minutes. The emissions resulted from the removal of the
25 No. 6 fan for its scheduled maintenance. PSAPCA was notified in

advance that the No. 6 fan had been removed from service at 4:00 p.m. for such scheduled maintenance for 30 hours.

For the foregoing event, Kaiser was mailed a notice of violation of WAC 18-52-031(3).

V

On June 24, 1980, at about 12:40 p.m., PSAPCA's inspector saw blue/white emissions coming from the roof vents on Kaiser's potline 2. After properly positioning himself, the inspector recorded an opacity of 45 to 50 percent for 11 consecutive minutes.

The inspector then noticed a white/blue/tan plume coming from the baghouse complex. He moved to get a proper view and observed an opacity of 30 to 60 percent for 9 consecutive minutes.

On June 23 Kaiser had informed PSAPCA that its No. 5 fan would be serviced during the period of the observations.

For the foregoing events, Kaiser was mailed a notice of violation of WAC 18-52-031(3) for each observation.

VI

PSAPCA's inspector was trained and qualified to estimate the opacity of plumes such as the instant ones. The inspector demonstrated ample competence and experience in his work. We find his observations in each instance to be credible.

VII

In each instance for which a violation was recorded, Kaiser was performing regular preventive maintenance on one of the fans, or returning the fan to service, after having notified PSAPCA of its

1 intentions. Such maintenance is scheduled for about 30 hours, two
2 times each year for each fan. Without such maintenance, the air
3 pollution control system would deteriorate to the point of being
4 ineffective. It is normal and anticipated that such scheduled
5 preventive maintenance on fans require that they be shut down; such
6 shutdown is not avoidable.

7 VIII

8 The removal of one of the air pollution control fans from service
9 decreases the volume of gas removed through the hoods over the
10 potlines by about twenty percent. Consequently, more gas can leave
11 through the roof vents.

12 The return of a fan to the system causes the system to lose its
13 equilibrium for awhile. This probably causes surging through the
14 system and higher emissions than would otherwise be normal.

15 IX

16 The reduction cells are operated continuously, 24 hours per day,
17 365 days a year. If, for some reason, power is not supplied to the
18 cells for about four hours, the solution would solidify. The cost to
19 repair such stoppage would be about \$1,000,000. The purity of the
20 aluminum would also be impaired for up to three months thereafter. It
21 is not economically feasible to halt the process, and thereby any
22 emission, to perform preventive maintenance on air pollution control
23 fans.

24 X

25 Under ordinary operation, Kaiser's potlines 1 and 2 do not release
26 emissions which are deemed unlawful under WAC 18-52-031(3). The air
27

1 pollution control fans are apparently sized to meet ordinary control
2 requirements but lack sufficient capacity to meet such requirements
3 during scheduled preventive maintenance periods.

4 Kaiser's air pollution control system was approved by DOE during
5 the early 1970's. At that time, there were no applicable emission
6 standards as is the case here. The DOE apparently did not require
7 Kaiser to provide for extra control capacity during periods of
8 scheduled preventive maintenance. The instant regulation, WAC
9 18-52-031(3), is an additional requirement placed upon Kaiser since
10 the design was approved. Nonetheless, respondents consider the
11 instant violations a result of Kaiser's inadequate design. It is more
12 accurate to say that Kaiser's design has become inadequate because of
13 a new regulation.

14 XI

15 There apparently was some tacit understanding between Kaiser and
16 PSAPCA's former Tacoma office supervisor that reports for excessive
17 emission as a result of preventive maintenance were not required.
18 PSAPCA's new supervisor requested written reports from Kaiser and
19 received, in response, three letters describing the maintenance
20 undertaken, the time period covered and other actions. There was
21 never any understanding that notices of violation would not be issued
22 if warranted.

23 XII

24 The DOE has assumed control of regulating air pollution from major
25 air pollution control sources such as Kaiser's Tacoma plant. It has
26

1 established state-wide regulations, compliance schedules, and
2 monitoring programs.

3 PSAPCA has responsibility and jurisdiction over stationary sources
4 within its geographic boundaries with the exception of certain state
5 controlled sources.

6 By Order of Delegation No. 75-49, PSAPCA was delegated certain
7 responsibilities by DOE, including primary aluminum reduction plants
8 such as Kaiser's. These responsibilities include investigating
9 complaints, detecting violations, and issuing appropriate violation
10 notices and civil penalties relating to ch. 18-52 WAC. Exhibit R-1,
11 Section V.A. Copies of notices of violations and civil penalties are
12 to be forwarded to the DOE. The DOE may initiate enforcement action
13 after notifying PSAPCA. The instant violations fall within this
14 section of the Order of Delegation. The DOE did not have to approve
15 or object to proposed PSAPCA enforcement.

16 Section VII of the Order of Delegation relates to review of
17 emission reports, source testing results, and proposed regulations,
18 and coordination of investigations for reported upset condition and of
19 ambient air surveillance. PSAPCA must receive DOE approval before
20 enforcement action is taken under this section. The instant
21 violations do not come within this section of the Order of Delegation.

22 XIII

23 The air pollution control equipment for potlines 1 and 2 releases
24 air contaminants through multiple stacks on two baghouse units. These
25 units are separate emission points for the primary emission control
26

1 system of potlines 1 and 2. The air pollution control equipment is
2 not, aside from pollution control, vital to production of the normal
3 product of each potline or to its normal operation.

4 Potlines 1 and 2 are independent production lines physically
5 located in separate buildings. With or without air pollution control
6 equipment, each building constitutes a separate air pollution source.
7 Air contaminants are released to the atmosphere through roof vents
8 rather than through the primary exhaust system. The conclusion that
9 recording opacity readings of combined fugitive emissions from the
10 roof vents of the two buildings was technically proper is supported by
11 uncontroverted expert testimony.

12 XIV

13 For each violation, Kaiser was assessed a \$250 civil penalty¹
14 which were all appealed to this Board.

15 XV

16 Any Conclusions of Law which should be deemed a Findings of Fact
17 is hereby adopted as such.

18 From these Findings, the Board comes to these

19 CONCLUSIONS OF LAW

20 I

21 WAC 18-52-031(3) provides:

22 Visible emissions from all sources in a
23 primary aluminum mill excluding uncombined water
24 droplets shall not exceed for more than three
minutes in any one hour, 20 percent opacity.

25 Opacity is defined as "the degree to which an object seen through

26 1. Civil penalties Nos. 4793, 4794, 4795, 4796, 4797 and 4798.

1 a plume is obscured, excluding uncombined water droplets." WAC
2 18-52-021(26). It is a measure of obscuration and not a limitation on
3 number of plumes observed.

4 "All sources," reading the regulation as a whole, includes any or
5 all production equipment, emission point, or openings where fugitive
6 emissions are released. WAC 18-52-021(5), (17), (18), (28), and
7 (30). See WAC 18-52-071(1)(c), (1)(f); 18-52-080(1)(a and b).

8 II

9 Kaiser violated WAC 18-52-031(3) on the dates and times alleged.

10 III

11 PSAPCA's actions with respect to the instant notices of violation
12 and orders of civil penalty fall within the terms of the DOE Order of
13 Delegation.

14 IV

15 Kaiser asserts that even if violations occurred, it complied with
16 the conditions of WAC 18-52-077² and its emissions were all
17

18 2. WAC 18-52-077 provides:

19 (1) Upset conditions which may result in emissions in excess
20 of the standards set by this chapter must be reported promptly to
21 the department or appropriate air pollution control authority.
22 Abnormal operations such as startup and shutdown operations which
23 can be anticipated must be reported in advance of the occurrence
of the abnormal operation if it may result in emissions in excess
of standards. Each aluminum plant shall, upon request from the
department or its designated agency, submit a full written report,
including the known causes and the preventive measures to be taken
to prevent a recurrence.

24 (2) Any period of excess emissions is presumed to be a
violation unless and until the owner or operator demonstrates, and
the department finds that:

25 (a) The incident was reported as required; and
26

excusable. There is no contention that an "upset" condition existed at the time in question.³ The initial determination to make is whether Kaiser's operation during the preventive maintenance periods falls within the term "abnormal operation,"⁴ thereby enabling Kaiser to use WAC 18-52-077. From the definition and use of the term, "abnormal operation" is strictly limited to a process relating to production of product and not to air pollution control equipment not

2. Cont.

- (b) Complete details were furnished the department or agency; and
- (c) Appropriate remedial steps were taken to minimize excessive emissions and their impact on ambient air quality; and
- (d) The incident was unavoidable.

(3) If the conditions of (2) above are met, the incident is excusable and a notice of violation will not be issued.

(4) If any of the conditions of (2) above are not met, the incident is not excusable and a notice of violation will be issued and a penalty may be assessed.

(5) For the department to find that an incident of excess emissions is unavoidable, the aluminum plant must submit sufficient information to demonstrate that the following conditions were met:

(a) The process equipment and the air pollution control equipment were at all times maintained and operated in a manner consistent with minimized emissions.

(b) Repairs or corrections were made in an expeditious manner when the operator knew or should have known that emission limitations were being or would be exceeded.

(c) The incident is not one in a recurring pattern which is indicative of inadequate design, operation or maintenance.

3. WAC 18-52-021(34) defines "upset" as "an unexpected sudden occurrence which may result in emissions in excess of emission standards."

4. WAC 18-52-021(1) defines "abnormal operation" as "a process operation other than normal operation which may result in emissions that exceed emission standards. An abnormal operation can be anticipated and planned." (Emphasis added.) A "process" operation relates to the operation devoted to production of the normal product of the source as distinguished from air pollution

1 vital to that production.⁵ Kaiser's operation during preventive
2 maintenance periods clearly is not "abnormal operation" described in
3 the regulation. Consequently, Kaiser's violations are not excusable
4 under WAC 18-52-077. The DOE is the agency delegated the authority to
5 adopt rules affecting the instant plant. RCW 43.21A.060; RCW
6 70.94.331. It has adopted ch. 18-52 WAC without the exculpatory
7 provisions Kaiser seeks to find. This Board cannot create such
8 provisions in this proceeding, even if it believed the lack of such
9 provisions to be unwise. See Weyerhaeuser v. Department of Ecology,
10 86 Wn.2d 310 (1976). Accordingly, we conclude that the violations are
11 not excusable under WAC 18-52-077.

12 Even if Kaiser's operation could be deemed to fall within the term
13 "abnormal operation," Kaiser, while meeting other requirements, does
14 not fulfill the "unavoidable" emissions requirement of WAC 18-52-077.
15 WAC 18-52-077(2)(d) and (5).⁶ To do so Kaiser must show:

16 1) Both process and air pollution control equipment were
17 maintained and operated in a manner consistent with minimized
18 emission--testimony from Kaiser shows that it has, insofar as the
19 existing plant allows;

21 4. Cont.
22 control equipment. See WAC 18-52-021(28) and (5); WAC
23 18-52-077(5)(9). WAC 18-52-077(1) further describes "abnormal
operations" to include operations "such as startup and shutdown
operations which can be anticipated."

24 5. See Footnote 4.

25 6. See Footnote 2.

2) Repairs or corrections were made in an expeditious manner when the operator knew that emission limitations were being exceeded--testimony from Kaiser relating to the time necessary to perform the maintenance was not disputed; and

3) The incident is not a recurring one indicative of inadequate design, inadequate operation, or inadequate maintenance. The excessive emissions did not result from inadequate operation or maintenance. There is a question whether Kaiser's emissions resulted from inadequate design of the air pollution control system. As earlier noted, Kaiser's design was approved by DOE before the adoption of a limitation such as that found in WAC 18-52-031(3). The same is true for WAC 18-52-077: there appear no provisions excusing violations during the same time period. The net result is that Kaiser has had to comply with a new visible emission requirement not unlike that already required of other sources subject to the general air pollution regulations of ch. 173-400 WAC or PSAPCA's Regulation I. Kaiser's design, without sufficient capacity for preventive maintenance to avoid unlawful visible emissions, became "inadequate" within the meaning of WAC 18-52-077(5)(c). Therefore, Kaiser does not meet the criteria of WAC 18-52-077 and the violations are not excused. More importantly, as earlier stated, the provision is in any event, also not applicable here.

V

Each penalty was properly assessed and should be affirmed.

VI

Any Findings of Fact which should be deemed a Conclusion of Law is hereby adopted as such.

From these Conclusions, the Board enters this

ORDER

Civil penalties Nos. 4793, 4794, 4795, 4796, 4797, and 4798, each for \$250, are affirmed.

DONE this 10th day of April, 1981.

POLLUTION CONTROL HEARINGS BOARD



DAVID AKANA
Presiding Officer